

**Notice of Allowability**

Application No.

10/623,103

Examiner

Tuan V. Thai

Applicant(s)

BLUMENAU, STEVEN M.

Art Unit

2186

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 5/4/2007.
2. ☒ The allowed claim(s) is/are 2-6, 8-14, 16, 18, 23, 25-28, 30-35, 37-43, 45, 47, 50 and 52-54 renumbered as 1-38 respectively.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

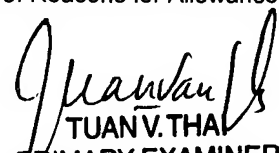
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
TUAN V. THAI  
PRIMARY EXAMINER  
GROUP 2100

Application/Control Number: 10/623,103

Art Unit: 2186

Attorney's Docket No.: EMC03-10

**IN THE UNITED STATES PATENT AND  
TRADEMARK OFFICE**

**In re application of:** Blumenau, Steven M. **Group:** 2186

**Serial No.:** 10/623,103 **Examiner:** Tuan Thai

**For:** ***METHOD AND APPARATUS FOR INTERFACING TO A DATA STORAGE  
SYSTEM.***

1. This action is responsive to amendment filed 05/04/2007. Claims 1, 7, 15, 17, 19-22, 24, 29, 36, 44, 46, 48-49, 51 and 55-58 have been canceled. Claims 2-6, 8-14, 16, 18, 23, 25-28, 30-35, 37-43, 45, 47, 50 and 52-54 are now allowed.

**REASONS FOR ALLOWANCE**

2. The following is an Examiner's Statement of Reasons for Allowance:

The prior arts of record do not teach or suggest, alone or in combination, **all** the limitations of the independent claims of the current invention (claims 2, 11, 23, 25, 26, 28, 30, 40, 50, 52 and 53). The discussion of the reasons for allowance shall be directed to claim 2 in which the Examiner shall designate as the primary invention in this application; however, the reasons for

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allowance will also apply to all other indicated independent claims 11, 23, 25, 26, 28, 30, 40, 50, 52 and 53. The prior arts of record do not teach nor suggest a dynamic volume configuration technique that allows storage space within storage devices in the data storage system to be dynamically added and removed from the volumes on an as-needed basis, without requiring disruption of host activities with respect to the volumes, a persistent identifier of a volume allows all hosts and other data storage systems to recognize the volume, this allows a volume in one data storage system to have associated storage space from another volume in another data storage system. Utilizing these techniques, the current invention allows software applications and operating systems on hosts that interface to the data storage system to perceive that a volume is always present on the data storage system, even if storage space understood to be associated with the volume from the host's perspective is allocated elsewhere or is non-existent. In light of the foregoing; claims 2, 11, 23, 25, 26, 28, 30, 40, 50, 52 and 53 of the present application are found to be patentable over the prior arts.

Claims 3-6, 8-10, 12-14, 16, 18, 27, 31-35, 37-39, 41-43, 45, 47 and 54 further limit the allowable independent claims 2, 11, 26, 30, 40 and 53. The claims are therefore allowable for the same reason as set forth above.

Any comments considered necessary by Applicant must be

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submitted no later than the payment of the Issue Fee and, to avoid processing delays, should preferably accompany the Issue Fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

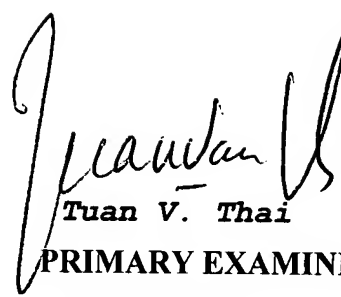
3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan V. Thai whose telephone number is (571)-272-4187. The examiner can normally be reached on from 6:30 A.M. to 4:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mathew M. Kim can be reached on (571)-272-4182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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**TVT**/May 25, 2007

  
**Tuan V. Thai**  
**PRIMARY EXAMINER**  
**Group 2100**